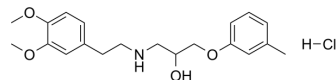


Bevantolol hydrochloride

Cat. No.:	HY-121186
CAS No.:	42864-78-8
Molecular Formula:	C ₂₀ H ₂₈ ClNO ₄
Molecular Weight:	381.89
Target:	Adrenergic Receptor; Calcium Channel
Pathway:	GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 62.5 mg/mL (163.66 mM; Need ultrasonic)					
	H ₂ O : 4.55 mg/mL (11.91 mM; ultrasonic and warming and heat to 60°C)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.6186 mL	13.0928 mL	26.1855 mL
5 mM			0.5237 mL	2.6186 mL	5.2371 mL	
	10 mM		0.2619 mL	1.3093 mL	2.6186 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 6.25 mg/mL (16.37 mM); Clear solution; Need ultrasonic and warming and heat to 60°C					

BIOLOGICAL ACTIVITY

Description	Bevantolol hydrochloride is a selective β ₁ and α ₁ -adrenergic receptor antagonist with pK _i values of 7.83, 6.9 in rat cerebral cortex, respectively. Bevantolol hydrochloride is a potent Ca ²⁺ antagonist ^{[1][2]} .	
IC₅₀ & Target	α adrenergic receptor	β adrenergic receptor
In Vitro	Bevantolol hydrochloride has a pK _i of 6.23 for β ₂ -adrenergic receptor ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Bevantolol hydrochloride (200 mg/kg; PO by water; for 6 weeks) produces a significant decrease in the expression level of β ₁ adrenoceptor mRNA ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

Animal Model:	Male Wistar rats weighing 250-300 g ^[2]
Dosage:	200 mg/kg
Administration:	PO by water; for 6 weeks
Result:	Produced a significant decrease in the expression level of β 1 adrenoceptor mRNA.

REFERENCES

- [1]. Takahiro Horinouchi, et al. Different Changes of Plasma Membrane Beta-Adrenoceptors in Rat Heart After Chronic Administration of Propranolol, Atenolol and Bevantolol. *Life Sci.* 2007 Jul 12;81(5):399-404.
- [2]. M Takita, et al. Selectivity of Bevantolol Hydrochloride Towards Alpha- And Beta-Adrenoceptor Subtypes in Rat Cerebral Cortex. *Jpn J Pharmacol.* 1992 Feb;58(2):193-6.

Caution: Product has not been fully validated for medical applications. For research use only.

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